

ABSTRACT

The invention relates to a method and a system of detecting and iteratively decoding encoded and interleaved symbols.

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Prior to any iteration, they enable (A) a linear estimation of the transmission channel $\hat{H}_{(z)}^1$ to be run on the basis of specific transmitted symbols, then, by iterations, the equalization (B) and decoding (C) process are subjected to an exchange of a priori information (D_2) on the symbol bits resulting from the decoding process (C) in the case of the equalization process (B) and on the encoded bits (D_1) resulting from the equalization process (B) in the case of the decoding process (C) and an updated iterative re-estimation (G, E_2) of the transmission channel is run on the basis of the information resulting from the equalization (B) and decoding (C) process. The steps performed by iteration 1 are repeated at the next iteration $l+1$.

Application to reception in GSM and EDGE mobile telephony.

Figure 2a.